

## Notice of Allowability

Application No.

10/616,138

Examiner

Paul S. Hyun

Applicant(s)

VOICE ET AL.

Art Unit

1743

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 09 July 2003.
2. ☒ The allowed claim(s) is/are 1-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 8/25/06.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## DETAILED ACTION

### Examiner's Amendment

During communication on 25 August 2006, Ian McLeod gave authorization for an Examiner's Amendment to amend the claims in order to facilitate the prosecution.

#### Claim 1 (currently amended)

Line 20: removes the As(V) and MMA [in] from the water while the As(III)

#### Claim 11 (currently amended)

Line 3: [exchumnge] exchange media.

#### Claim 19 (currently amended)

Line 14: a third of the media, which is coated, at

#### Claim 27 (currently amended)

Line 2: comprises calcined diatomaceous earth coated with dioctyltin dichloride.

#### Claim 28 (currently amended)

Line 5 three separate solid-phase extraction media in columns wherein

Line 7: (1) a first of the media in a first of the columns removes

Line 10: (2) a second of the media in a second of the columns which at a pH

Line 13: (3) a third of the media in a third of the columns which at a pH of

#### Claim 36 (currently amended)

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Line 2 media comprises dioctyltin [dichloride] dichloride coated calcined

***Allowable Subject Matter***

Claims 1-36 are allowed.

The following is an examiner's statement of reasons for allowance:

The claimed invention recites a method and an apparatus for isolating individual species of arsenic from a water sample. The invention comprises the utilization of three separate media for binding the different species of arsenic.

Cheresnowsky et al. (US 4,814,148) disclose the use of a cation exchange media for removing cationic impurities from a sample that is believed to contain arsenic.

An article published by Nakazato et al., Determination of arsenite, arsenate, and monomethylarsonic acid in seawater by ion-exclusion chromatography combined with inductively coupled plasma mass spectrometry using reaction cell and hydride generation techniques discloses the use of sulfonated polystyren resin to separate different species of arsenic.

Friot (US 2001/0052495 A1) and Litz et al. (US 2003/0132155 A1) also disclose a method of purifying arsenic-containing water.

However, prior art does not disclose a media (calcined diatomaceous earth coated with dioctyltin dichloride) that removes As(V) and MMA from a water sample while allowing As(III) to remain in the water at a pH between 2.5 to 3.5.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul S. Hyun whose telephone number is (571)-272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PSH  
8/25/06

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700